



**Sonoma Water**

**State Water Resources Control Board  
 Temporary Urgency Change Order (6/14/2021)  
 Russian River Hydrologic Report  
 November 19, 2021 - November 25, 2021**

Prepared as a requirement of the Order approving Sonoma Water's Petition for Temporary Urgency Change in Permits 12947A, 12949, 12950, and 16596 (Applications 12919A, 15736, 15737, and 19351).

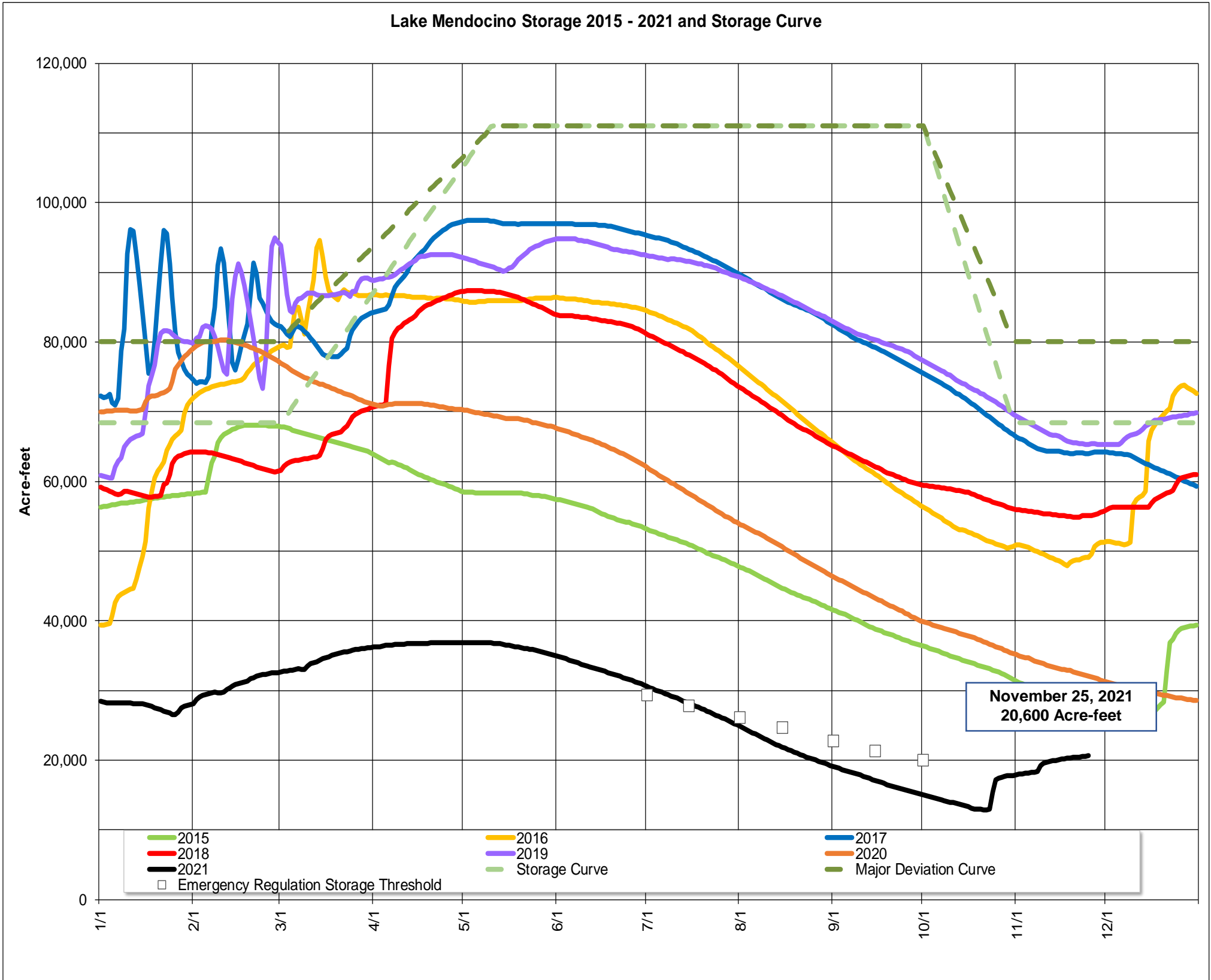
**Instream Flow Requirements as of November 25, 2021**

| Basis                                  | Reach               | Instantaneous (cfs) | 5-day Average (cfs) |
|----------------------------------------|---------------------|---------------------|---------------------|
| Modified Per Order: Critical Condition | Upper Russian River | <b>15</b>           | <b>25</b>           |
| D-1610: Dry Condition                  | Dry Creek           | <b>25</b>           | <b>-</b>            |
| Modified Per Order: Critical Condition | Lower Russian River | <b>25</b>           | <b>35</b>           |

Upper Russian River and Lower Russian River based on criteria as established in the Order issued 6/14/2021.

**Lake Mendocino**

**Lake Mendocino Storage 2015 - 2021 and Storage Curve**



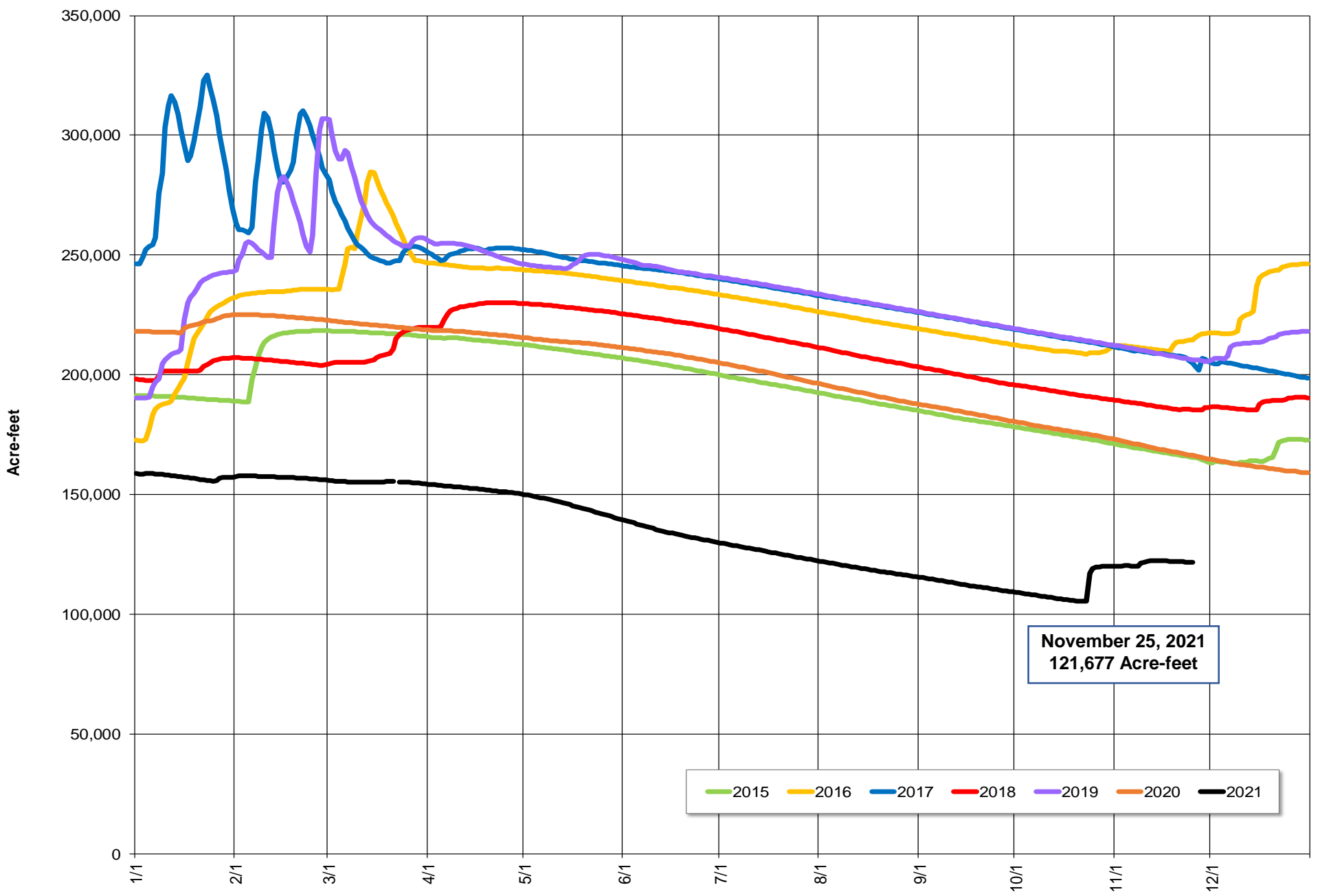
| Storage (acre-feet)           | November 25, 2021 | <b>20,600</b> |                    |
|-------------------------------|-------------------|---------------|--------------------|
|                               |                   | Total         | Average Daily Rate |
| Change in Storage (acre-feet) | Last 30 days      | <b>3,141</b>  | <b>105</b>         |
|                               | Last 7 days       | <b>288</b>    | <b>41</b>          |
| Daily Inflow (cfs)            | Last 7 days       | Min           | <b>51</b>          |
|                               |                   | Max           | <b>68</b>          |
|                               |                   | Mean          | <b>56</b>          |
| Release (cfs)                 | Last 7 days       | Min           | <b>29</b>          |
|                               |                   | Max           | <b>29</b>          |
|                               |                   | Mean          | <b>29</b>          |

# Lake Sonoma



Nathan Baskett, March 3, 2011

Lake Sonoma Storage 2015-2021



| Storage (acre-feet)           | November 25, 2021 | 121,677 |                    |
|-------------------------------|-------------------|---------|--------------------|
|                               |                   | Total   | Average Daily Rate |
| Change in Storage (acre-feet) | Last 30 days      | 2,031   | 68                 |
|                               | Last 7 days       | -528    | -75                |
| Daily Inflow (cfs)            | Last 7 days       | Min     | 20                 |
|                               |                   | Max     | 78                 |
|                               |                   | Mean    | 39                 |
| Release (cfs)                 | Last 7 days       | Min     | 75                 |
|                               |                   | Max     | 76                 |
|                               |                   | Mean    | 76                 |

# Potter Valley Project

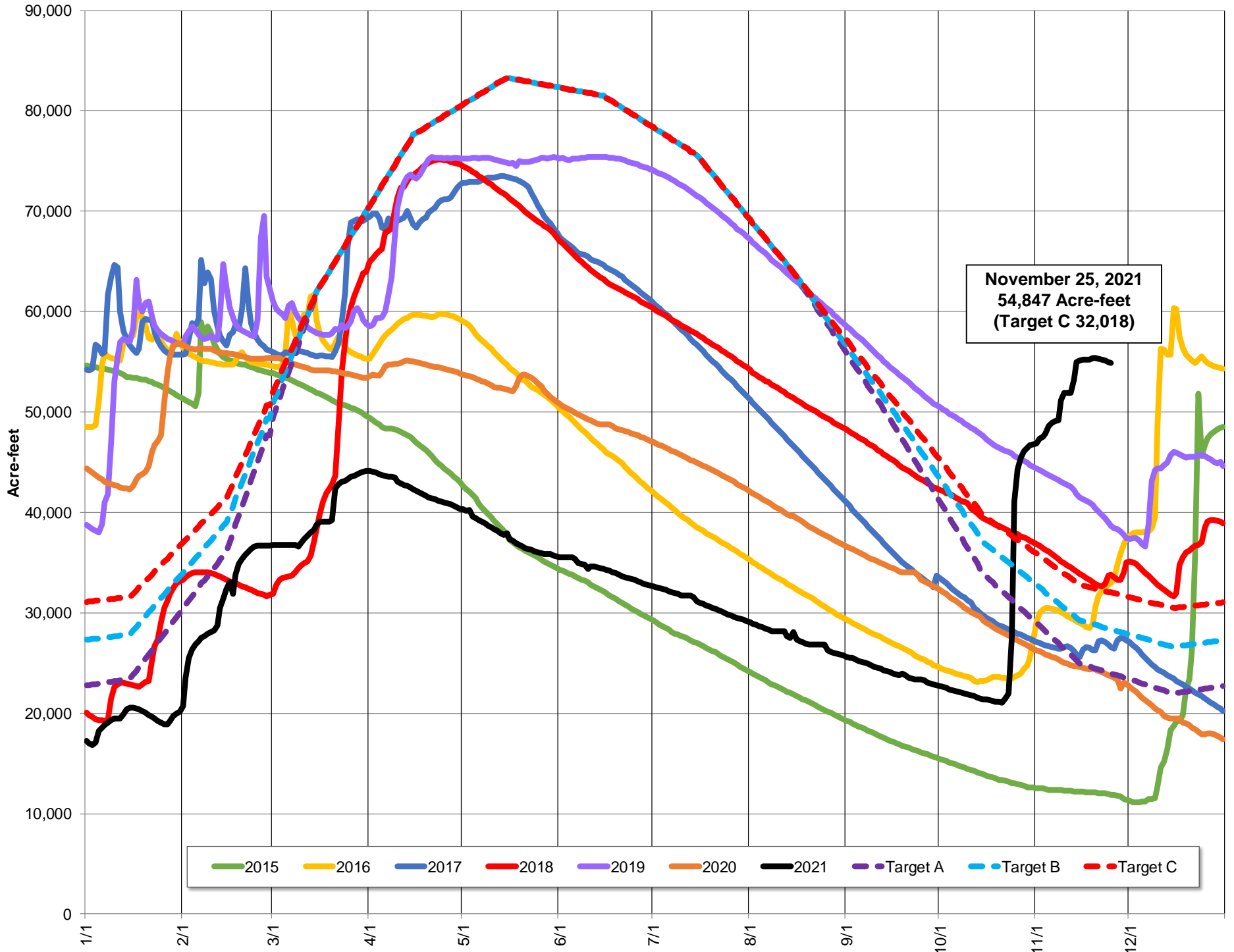
|                     |                   |    |
|---------------------|-------------------|----|
| PVP Diversion (cfs) | November 25, 2021 | 43 |
|---------------------|-------------------|----|

## Lake Pillsbury

| Parameter           | Date Range                          | Cumulative | Daily Average |
|---------------------|-------------------------------------|------------|---------------|
| Inflow* (acre-feet) | October 1, 2021 - November 25, 2021 | 47,325     | 845           |
|                     | Last 7 days                         | 2,432      | 347           |

\*Inflow calculation based on criteria established in D1610

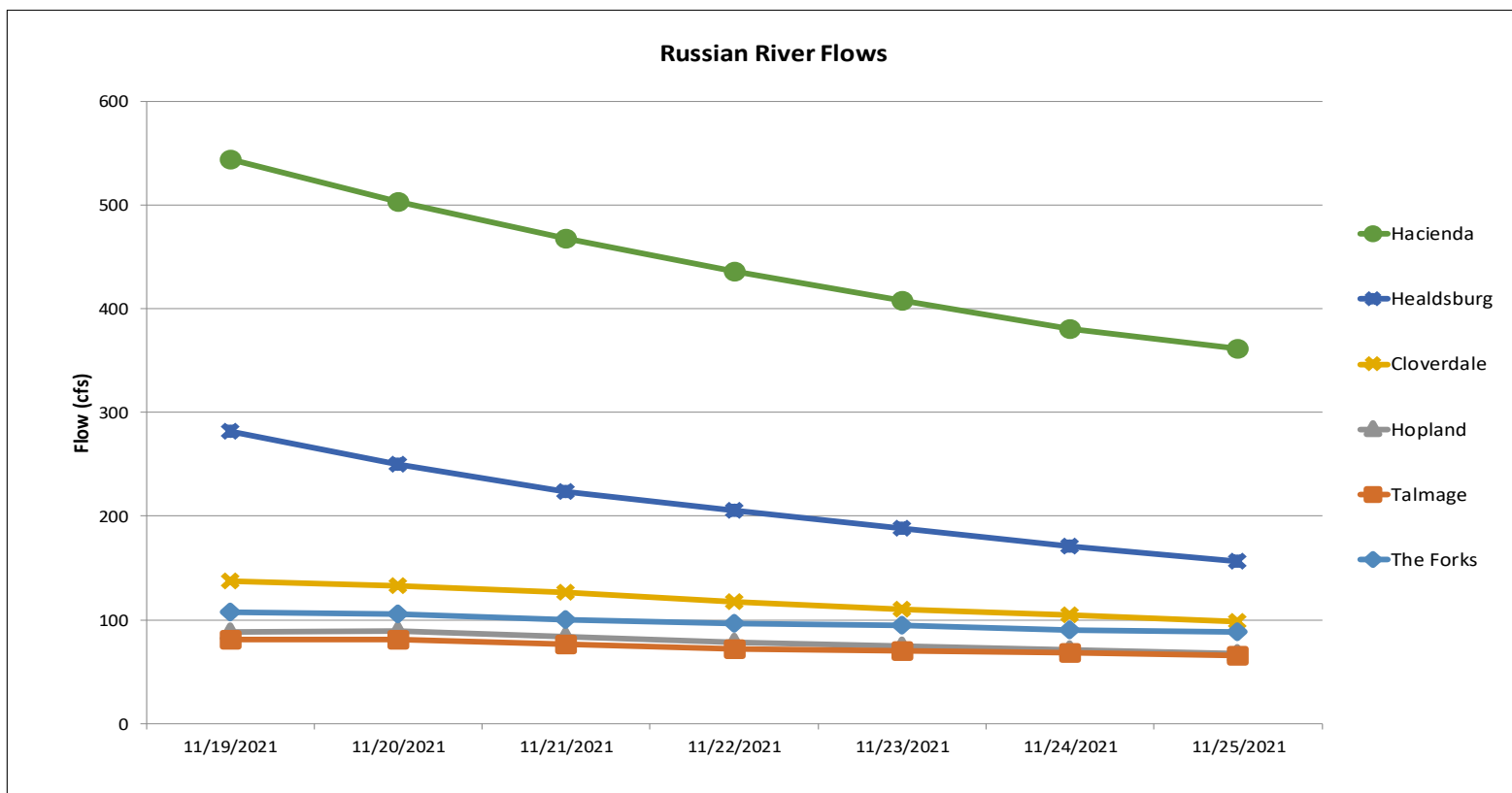
Lake Pillsbury Storage 2015-2021 and Target Storage Scenarios



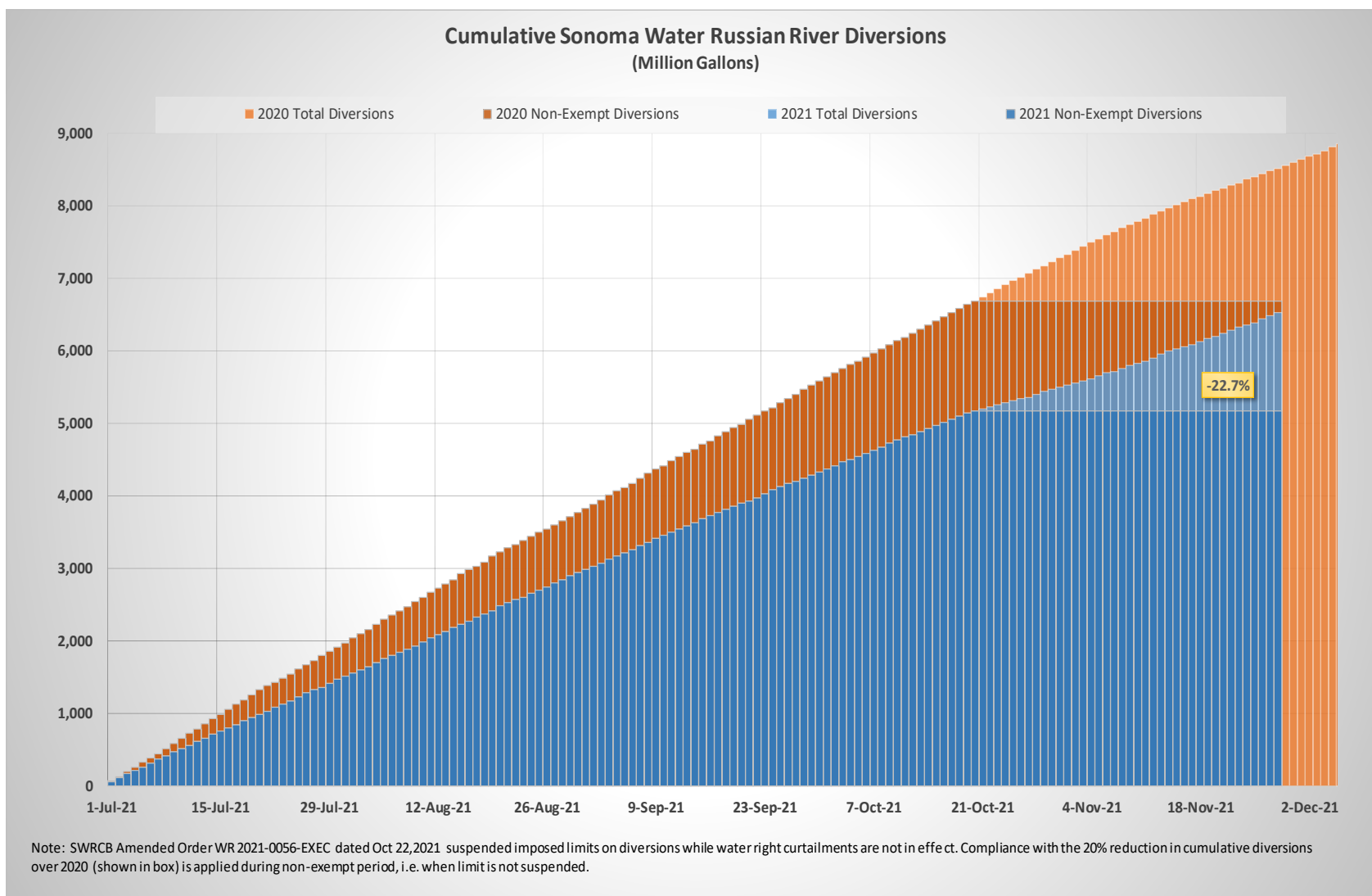
### Russian River Flows (November 19 - November 25, 2021)

| Gage                        | 24-hr Average Flow (cfs) |              |              |              |              |              |              |
|-----------------------------|--------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                             | Nov 19, 2021             | Nov 20, 2021 | Nov 21, 2021 | Nov 22, 2021 | Nov 23, 2021 | Nov 24, 2021 | Nov 25, 2021 |
| The Forks*                  | 107                      | 106          | 100          | 96           | 94           | 91           | 88           |
| Talmage<br>USGS 11462080    | 81                       | 81           | 76           | 72           | 70           | 68           | 66           |
| Hopland<br>USGS 11462500    | 88                       | 89           | 83           | 78           | 75           | 71           | 67           |
| Cloverdale<br>USGS 11463000 | 138                      | 133          | 126          | 117          | 110          | 105          | 99           |
| Healdsburg<br>USGS 11464000 | 282                      | 250          | 224          | 205          | 188          | 171          | 156          |
| Hacienda<br>USGS 11467000   | 544                      | 503          | 468          | 436          | 408          | 381          | 362          |

\*West Fork (USGS 11461000) + East Fork (Coyote Valley Dam Release)



### Sonoma Water River Diversions (July 1 - November 25, 2021)



## Russian River Fisheries Monitoring



Sonoma Water conducted walk in and boat-based Chinook salmon spawner surveys on the mainstem Russian River from November 17, to November 26, 2021. In total, we observed 39 salmon redds. We have a high degree of confidence that 26 of those redds were constructed by Chinook. We have a lower degree of confidence in 13 older salmon redds that were less well defined. In addition to salmon redds, 6 live adult Chinook salmon were observed. Due to high flow events that occurred prior to these surveys, it is possible that more redds were present but went undetected because high water velocities rearranged stream gravel making redds difficult to detect.

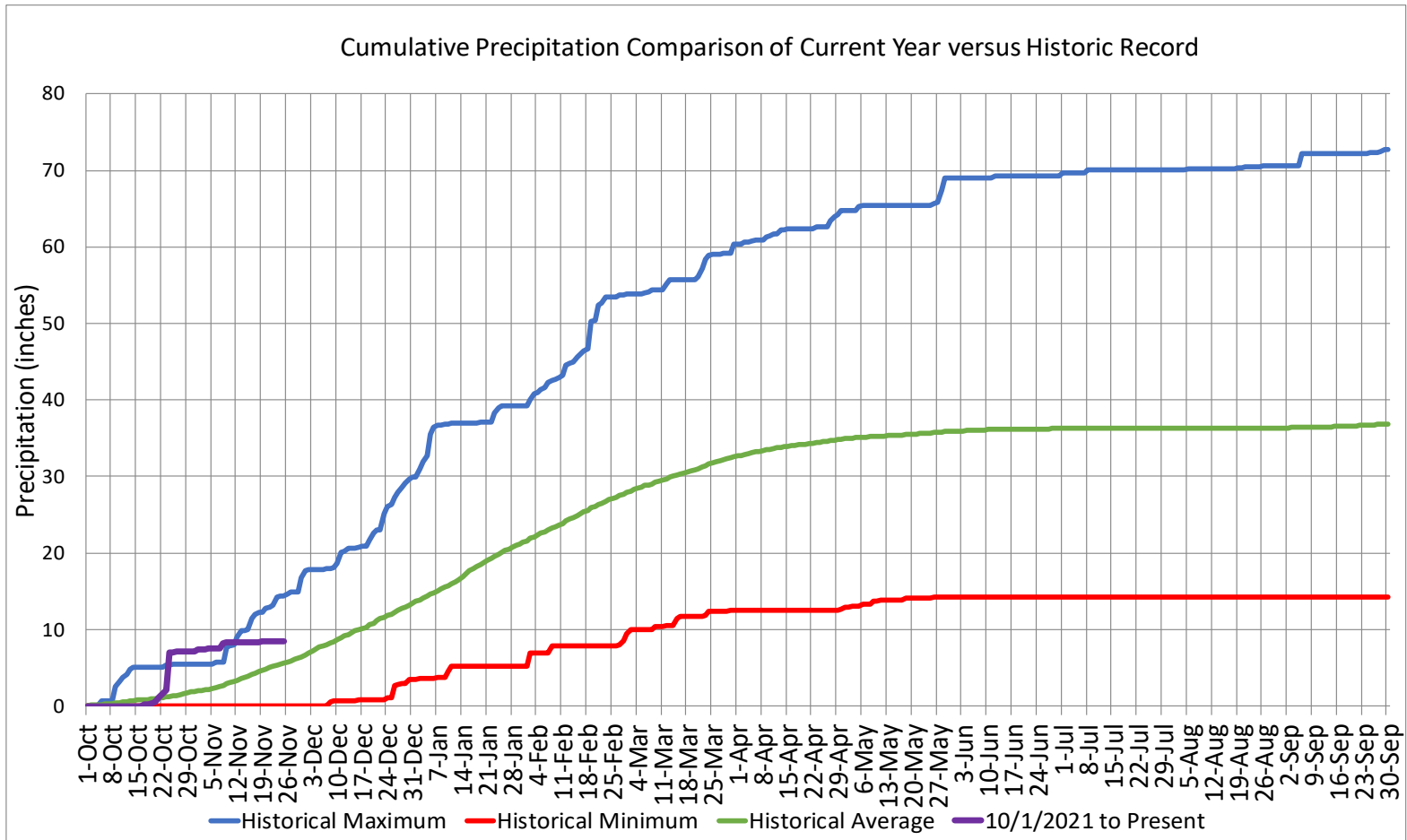
| Reach                    | New Redds | Old Redds | Adult Chinook |
|--------------------------|-----------|-----------|---------------|
| Canyon - Lower           | 4         | 0         | 1             |
| Canyon - Middle          | 5         | 2         | 0             |
| Alexander Valley - Lower | 1         | 0         | 1             |
| Alexander Valley - Upper | 14        | 11        | 3             |
| Healdsburg - Lower       | 0         | 0         | 0             |
| Healdsburg - Upper       | 2         | 0         | 1             |
| Grand Total              | 26        | 13        | 6             |

Table 1. The number of new salmon redds, old salmon redds, and adult Chinook salmon observed during spawner surveys conducted on the mainstem Russian River from November 17, to November 26, 2021.

### Precipitation

Ukiah Municipal Airport (WBAN: 72590523275 (KUKI))

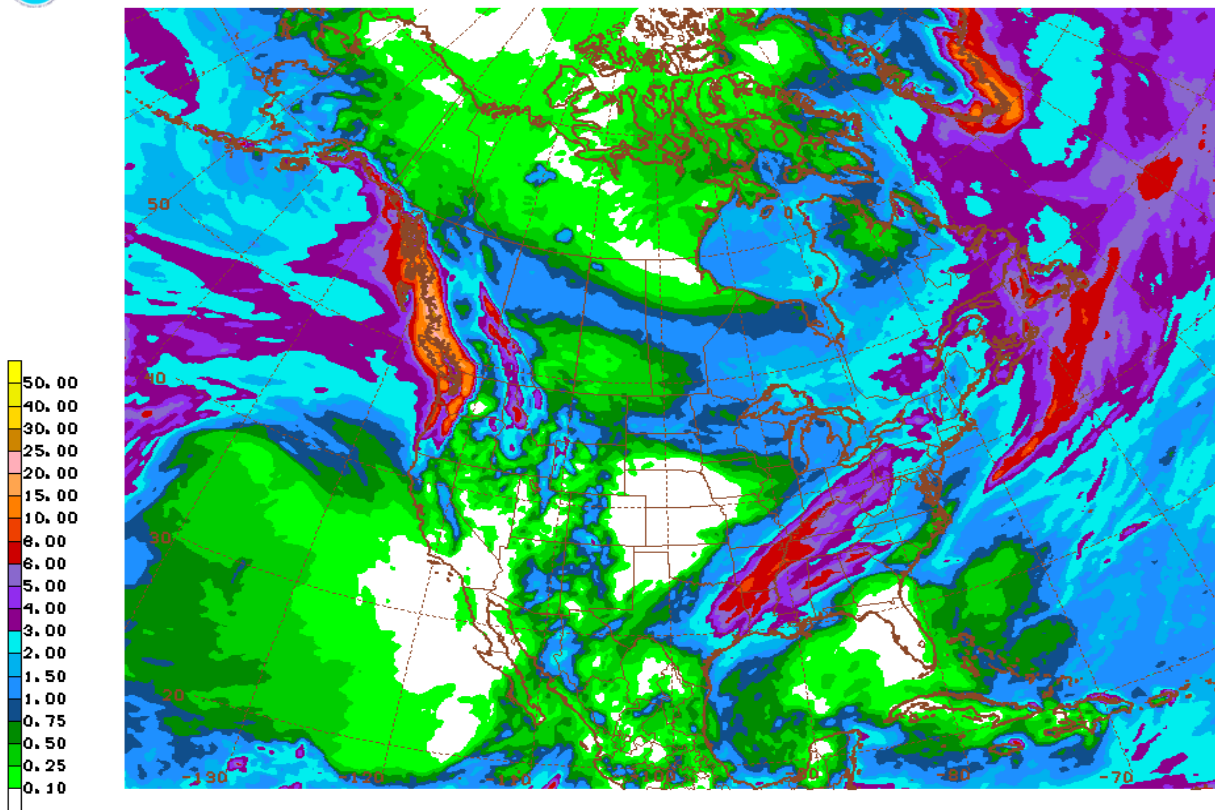
| Date Range                 | Cumulative (inches) |
|----------------------------|---------------------|
| Oct 1, 2021 - Nov 25, 2021 | <b>8.48</b>         |
| Last 7 Days*               | <b>0.14</b>         |



### Global Forecast System Model 16-day Cumulative Precipitation Forecast



GFS 11/29/21 18UTC 384HR FCST VALID MED 12/15/21 18UTC NOAA/NWS/NCEP



GFS MED 211215/1800Y384 384HR ACCUMULATED PRECIP (IN)

| Date Range            | Forecasted Cumulative (inches) |
|-----------------------|--------------------------------|
| Nov 29 - Dec 15, 2021 | <b>0.4</b>                     |